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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/556,503	04/24/2000	Charles J. Burnett	10991754-1	7659

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EXAMINER

TAYLOR, BARRY W

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 03/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/556,503

Applicant(s)

BURNETT, CHARLES J.

Examiner

Barry W Taylor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lam (5,901,202) in view of Garland et al (5,825,849 hereinafter Garland).

Regarding claims 1 and 11. Lam teaches a slave test unit for testing voice signal quality over phone connections (entire disclosure), comprising:

at least two phone line connectors attached to separate phone lines (col. 1 lines 1-35),

means for transmitting and receiving electrical signals ... (abstract, col. 1 line 37-56),

means for decoding the test command ... (col. 1 lines 43-46),

means for executing the test commands ... (col. 1 lines 47-48);

whereby the test commands executed by the slave test unit are received exclusively from the at least one remote unit (col. 2 line 36 – col. 4 line 21).

Lam does not explicitly show the executing means including the ability to generate test signals on any of the separate phone lines. In other words, Lam teaches a technique for initiating a telephone call from a remote location wherein a master processor establishes a voice and data connection with a slave processor tied to a

remote telephone line. After a communication link is established between the master and slave processors, the master processor signals the slave to make a connection on the remote line located within another country (see entire disclosure).

Garland teaches a simple and inexpensive mechanism for conducting loop back tests on either the analog or ISDN local loops (col. 1 lines 1-11). Garland discloses (col. 1 lines 29-67) that prior art loop back testing only allows for one line at a time to be tested (i.e. similar to Lam invention). Garland teaches a master (40 figure 1) communicating with loop-back devices (46a through 46g figure 1) wherein the master (40 figure 1) sends a preamble control message that identifies the specific one of the loop-back devices 46a through 46g targeted to receive the data message (col. 5 lines 28-47). Once the loop-back device receives the data message it returns the data message as a response to the master device (col. 5 lines 50-52). Alternatively, the loop-back devices (46a-46g) could modify the test message before looping back the response message (col. 5 lines 53-55). In an alternate embodiment, loop-back devices would transmit a different message (col. 5 lines 55-67, figures 1-3, columns 6-12). In summation, Garland teaches the master (40 figure 1) may command any one of the loop-back devices (46a-46g) to generate test signals on any of the separate lines (entire disclosure). For example, Garland shows the master (40 top right figure 1) commands loop-back device 46a (bottom right figure 1) to test a pair of wires connecting loop-back device 46a and 46c (i.e. first pair of wires) or to test a pair of wires connecting loop-back device 46a and 46b (i.e. second pair of wires) over a second pair of wires and/or

any communication links between any loop back device (46a-46g) which clearly reads on Applicant's general claim language.

Therefore, it would have been obvious for any one of ordinary skill in the art at the time the invention was made to modify the technique for remotely testing lines of foreign carriers as taught by Lam (col. 1 lines 10-35) to include the ability to test a plurality of lines from virtually any location as taught by Garland for the benefit of having a more flexible test unit.

Regarding claim 2. Lam teaches encoding test commands (Title, abstract, col. 1 lines 38-56, col. 3 lines 10-62). Garland also teaches that the master (40 figure 1) can command loop-back device 46a to perform test on a first pair of wires between itself and 46c or between itself and 46b on another pair of wires (col. 5 lines 3-67, col. 6 line 5 – col. 8 line 67).

Regarding claims 3-4 and 12-13. Lam teaches dialback command (abstract, col. 1 lines 46-56, and columns 3-4. Garland also discloses the ability of the slave (i.e. loop-back device) to generate test signals (col. 1 lines 46-55, col. 4 lines 16-64, col. 5 lines 3-8, lines 23-28, lines 42-67, col. 6 line 5 – col. 8 line 64).

Regarding claims 5 and 14. Lam teaches using a termination command (col. 1 lines 43-48, col. 4 lines 15-18). Garland teaches quiet termination command (see Title--
-“LOOP-BACK TEST SYSTEM USING A **SUPPRESSED** RINGING CONNECTION”).

Regarding claim 6. Lam teaches a human operator interface (figure 2, col. 1 lines 36-57).

Regarding claims 7, 16-17. Lam teaches that the remote test unit "PC" (110 fig. 2) is another slave test unit "PC" (180 fig. 2). See Garland col. 2 lines 53+.

Regarding claims 8, 15, and 18. Lam teaches using DTMF technology (col. 2 line 56).

Regarding claim 9. Lam teaches FX0/FXS are tested (see column 1 wherein AT&T test lines of other carriers "FX0/FXS").

Regarding claim 10. Lam teaches the slave unit is adapted for E&M (see column 3 wherein human operators may be used which use Ear and Mouth to communicate).

Response to Arguments

3. Applicant's arguments filed 1/13/03 have been fully considered but they are not persuasive.

a) Regarding Applicant's remarks on page 4 wherein Applicant's contend that: More specifically, no combination of Lam and Garland teaches the ability of a slave test unit to execute test commands that include "the ability to generate test signals on any separate phone lines".

The Examiner respectfully disagrees. Lam does not explicitly show the executing means including the ability to generate test signals on any of the separate phone lines. In other words, Lam teaches a technique for initiating a telephone call from a remote location wherein a master processor establishes a voice and data connection with a slave processor tied to a remote telephone line. After a communication link is established between the master and slave processors, the master processor signals the

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slave to make a connection on the remote line located within another country (see entire disclosure).

Garland teaches a simple and inexpensive mechanism for conducting loop back tests on either the analog or ISDN local loops (col. 1 lines 1-11). Garland discloses (col. 1 lines 29-67) that prior art loop back testing only allows for one line at a time to be tested (i.e. similar to Lam invention). Garland teaches a master (40 figure 1) communicating with loop-back devices (46a through 46g figure 1) wherein the master (40 figure 1) sends a preamble control message that identifies the specific one of the loop-back devices 46a through 46g targeted to receive the data message (col. 5 lines 28-47). Once the loop-back device receives the data message it returns the data message as a response to the master device (col. 5 lines 50-52). Alternatively, the loop-back devices (46a-46g) could modify the test message before looping back the response message (col. 5 lines 53-55). In an alternate embodiment, loop-back devices would transmit a different message (col. 5 lines 55-67, figures 1-3, columns 6-12). In summation, Garland teaches the master (40 figure 1) may command any one of the loop-back devices (46a-46g) to generate test signals on any of the separate lines (entire disclosure). For example, Garland shows the master (40 top right figure 1) commands loop-back device 46a (bottom right figure 1) to test a pair of wires connecting loop-back device 46a and 46c **(i.e. first pair of wires)** or to test a pair of wires connecting loop-back device 46a and 46b **(i.e. second pair of wires)** over a second pair of wires and/or any communication links between any loop back device (46a-46g) which clearly reads on Applicant's general claim language.

Therefore, it would have been obvious for any one of ordinary skill in the art at the time the invention was made to modify the technique for remotely testing lines of foreign carriers as taught by Lam (col. 1 lines 10-35) to include the ability to test a plurality of lines from virtually any location as taught by Garland for the benefit of having a more flexible test unit.

b) Regarding Applicant's remark on page 5 with regards to Applicant's amending claim 11 to indicate that test signals can be generated over more than one phone connection.

The Examiner notes that Garland shows the master (40 top right figure 1) commands loop-back device 46a (bottom right figure 1) to test a pair of wires connecting loop-back device 46a and 46c (i.e. first pair of wires) or to test a pair of wires connecting loop-back device 46a and 46b (i.e. second pair of wires) over a second pair of wires and/or any communication links between any loop back device (46a-46g) which clearly reads on Applicant's general claim language.

c) Regarding Applicant's remark on page 5 regarding dependent claim 2 wherein Applicant's contend that Lam alone does not in fact have the ability to encode test commands.

The Examiner notes that Garland teaches a simple and inexpensive mechanism for conducting loop back tests on either the analog or ISDN local loops (col. 1 lines 1-11). Garland discloses (col. 1 lines 29-67) that prior art loop back testing only allows for one line at a time to be tested (i.e. similar to Lam invention). Garland teaches a master (40 figure 1) communicating with loop-back devices (46a through 46g figure 1) wherein

the master (40 figure 1) sends a preamble control message that identifies the specific one of the loop-back devices 46a through 46g targeted to receive the data message (col. 5 lines 28-47). Once the loop-back device receives the data message it returns the data message as a response to the master device (col. 5 lines 50-52).

Alternatively, the loop-back devices (46a-46g) could modify the test message before looping back the response message (col. 5 lines 53-55). **In an alternate embodiment**, loop-back devices would transmit a different message (col. 5 lines 55-67, figures 1-3, columns 6-12). In summation, Garland teaches the master (40 figure 1) may command any one of the loop-back devices (46a-46g) to generate test signals on any of the separate lines (entire disclosure). For example, Garland shows the master (40 top right figure 1) commands loop-back device 46a (bottom right figure 1) to test a pair of wires connecting loop-back device 46a and 46c (**i.e. first pair of wires**) or to test a pair of wires connecting loop-back device 46a and 46b (**i.e. second pair of wires**) over a second pair of wires and/or any communication links between any loop back device (46a-46g) which clearly reads on Applicant's general claim language.

d) Regarding Applicant's remarks on page 5 regarding claims 3 and 12 regarding dialback.

The Examiner notes Lam teaches dialback command (abstract, col. 1 lines 46-56, and columns 3-4. Garland also discloses the ability of the slave (i.e. loop-back device) to generate test signals (col. 1 lines 46-55, col. 4 lines 16-64, col. 5 lines 3-8, lines 23-28, lines 42-67, col. 6 line 5 – col. 8 line 64).

e) Regarding Applicant's remarks on page 6 with respect to claims 4 and 13 wherein Applicant's contend the specification states that test units with loop back capability can return an incoming voice test signal without significant modification of the signal so that the initiating test unit can check for changes in the signal as a result of the round-trip transmission of the signal.

The Examiner notes Lam teaches dialback command (abstract, col. 1 lines 46-56, and columns 3-4. Garland also discloses the ability of the slave (i.e. loop-back device) to generate test signals (col. 1 lines 46-55, col. 4 lines 16-64, col. 5 lines 3-8, lines 23-28, lines 42-67, col. 6 line 5 – col. 8 line 64). Furthermore, In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "test units with loop back capability can return an incoming voice test signal without significant modification of the signal so that the initiating test unit can check for changes in the signal as a result of the round-trip transmission of the signal") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

f) Regarding Applicant's remark on page 6 with regards to claims 5 and 14 wherein Applicant's argue that the "quiet termination" is described in the specification as "the ability to generate no outgoing signals".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies

(i.e., "the ability to generate no outgoing signals") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

g) Regarding Applicant's remark on page 7 with regards to claims 6 and 16 possessing a operator interface.

The Examiner notes that possessing a operator interface reads on LCD or display typical for a personal computer (see Lam figure 2, col. 1 lines 36-57).

h) Regarding Applicant's remark on page 7 regarding claims 7 and 17. Lam teaches that the remote test unit "PC" (110 fig. 2) is another slave test unit "PC" (180 fig. 2). See Garland col. 2 lines 53+.

i) Regarding Applicant's remark on page 7 regarding claims 8, 15 and 18. Lam teaches using DTMF technology (col. 2 line 56).

j) Regarding Applicant's remark on page 8 regarding claims 9 and 10. Lam teaches FX0/FXS are tested (see column 1 wherein AT&T test lines of other carriers "FX0/FXS")

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

---(5,539,321) Sciacero et al is considered pertinent for "loop back" testing, near-end crosstalk, cable length, signal attenuation using master and slave communication

wherein control signals are used to select relevant sets of wire pairs to be tested (see all).

---(5,875,398) Snapp is considered pertinent for method and apparatus that uses master and slave communication enabling testing from remote location without the need of sending personnel to disparate geographic areas (see all).

---(6,154,523) Hofmann et al is considered pertinent for master and slave communication enabling testing of long distance toll switches (see all).

4. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor whose telephone number is (703) 305-4811. The examiner can normally be reached on Monday-Friday from 6:30am to 4pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (703) 305-4708. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 customer service Office whose telephone number is (703) 306-0377.


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600